

PRODUCT INFORMATION PACKET

Model No: 445THFCD8040

Catalog No: Y578A

Blue Max® Inverter Duty Encoder Motor, 200 HP, 3 Ph, 60 Hz, 460 V, 1800 RPM, 445T Frame, TEFC



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Nameplate Specifications

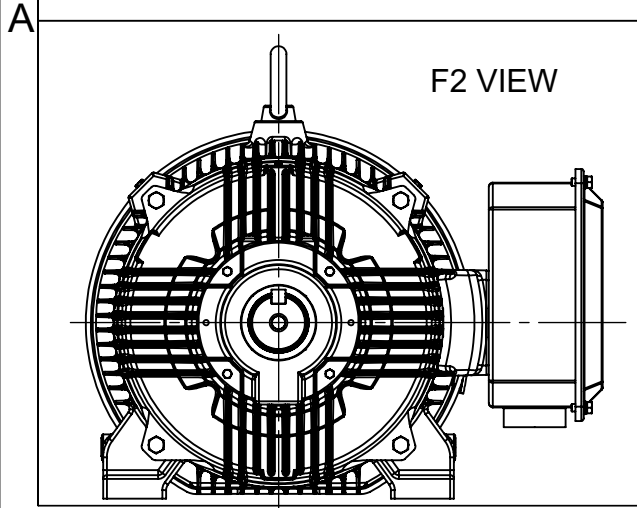
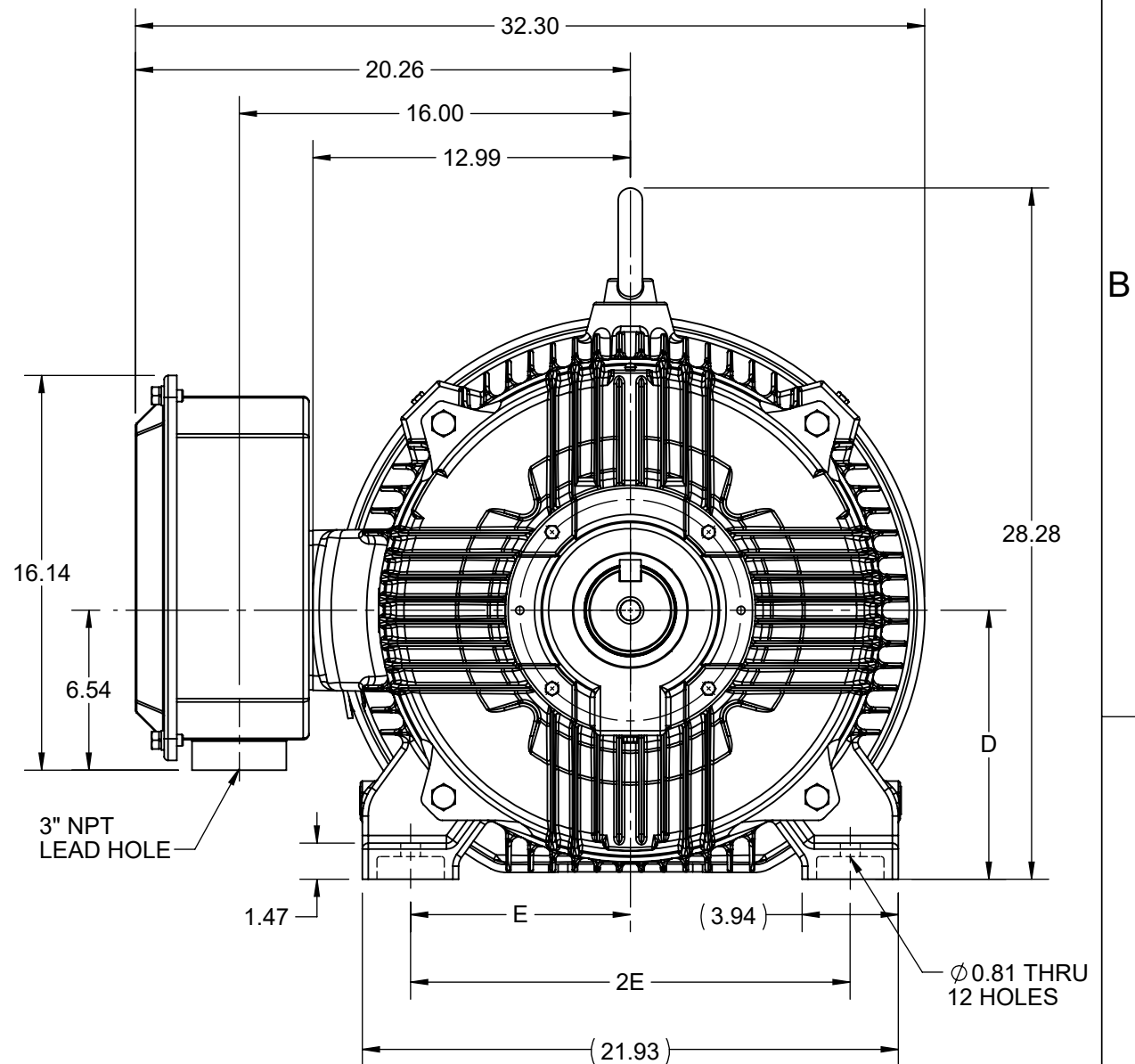
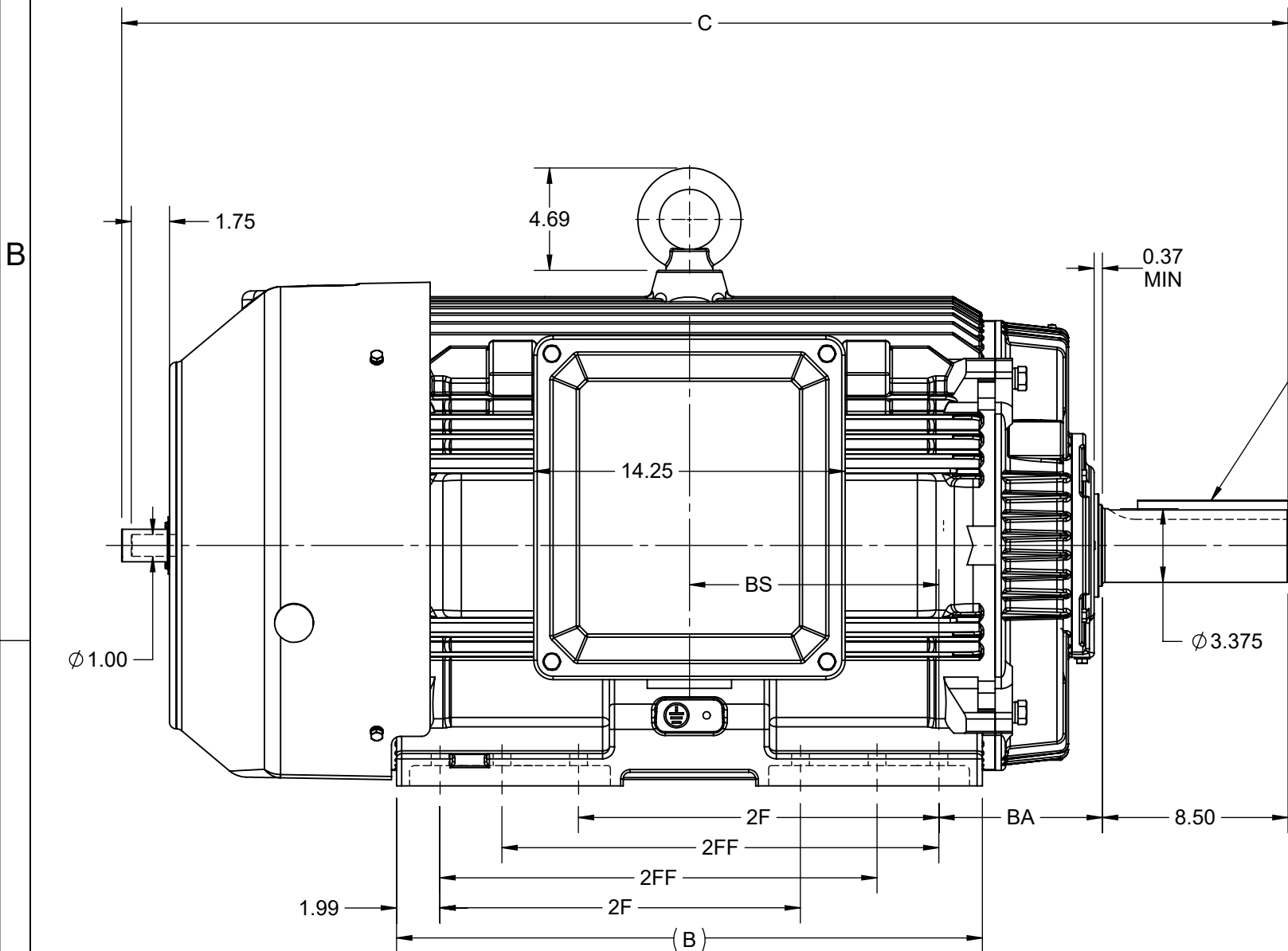
| | | | |
|------------------------|-------------------|----------------------------|------------------------------------|
| Output HP | 200 Hp | Output KW | 149.0 kW |
| Frequency | 60 Hz | Voltage | 460 V |
| Current | 214.0 A | Speed | 1785 rpm |
| Service Factor | 1 | Phase | 3 |
| Efficiency | 95.4 % | Power Factor | 91 |
| Duty | Continuous | Insulation Class | H |
| Design Code | INV | KVA Code | K |
| Frame | 445T | Enclosure | Totally Enclosed Fan Cooled |
| Thermal Protection | Thermostat | Ambient Temperature | 40 °C |
| Drive End Bearing Size | 6319 | Opp Drive End Bearing Size | 6317 |
| UL | Recognized | CSA | Y |
| CE | Y | IP Code | 55 |
| Number of Speeds | 1 | | |

Technical Specifications

| | | | |
|-----------------------|------------------------------------|-------------------|------------------------|
| Electrical Type | Squirrel Cage Inverter Duty | Starting Method | Inverter Only |
| Poles | 4 | Rotation | Reversible |
| Resistance Main | .0207 Ohms | Mounting | Rigid Base |
| Motor Orientation | Horizontal | Drive End Bearing | Ball |
| Opp Drive End Bearing | Ball | Frame Material | Cast Iron |
| Shaft Type | T | Shaft Diameter | 3.375 in |
| Assembly/Box Mounting | F1/F2 CAPABLE | Inverter Load | CONSTANT 2000:1 |
| Connection Drawing | EE7300T | Outline Drawing | SS621059 |

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| | | | | | | | | | | |
|-------|-------|-------|------|-------|-------|-------|------|-------|----------|---|
| 4 | | | | 3 | | | | | 2 | 1 |
| B | C | D | E | 2E | 2F | 2FF | BA | BS | MOUNTING | |
| 26.81 | 53.38 | 11.00 | 9.00 | 18.00 | 16.50 | 20.00 | 7.50 | 11.41 | F1 OR F2 | |



| | | |
|---|-----------------------|-------------------------------|
| DRAWING REVISION B | REVISION BY GOPI J | REV DATE/© DATE 18/02/2022 |
| REQUEST NUMBER CR-0007099 | APPROVED BY SBD | DATE 18/02/2022 |
| REQUEST NUMBER DESCRIPTION VIEWS UPDATED AS PER 3D | | |
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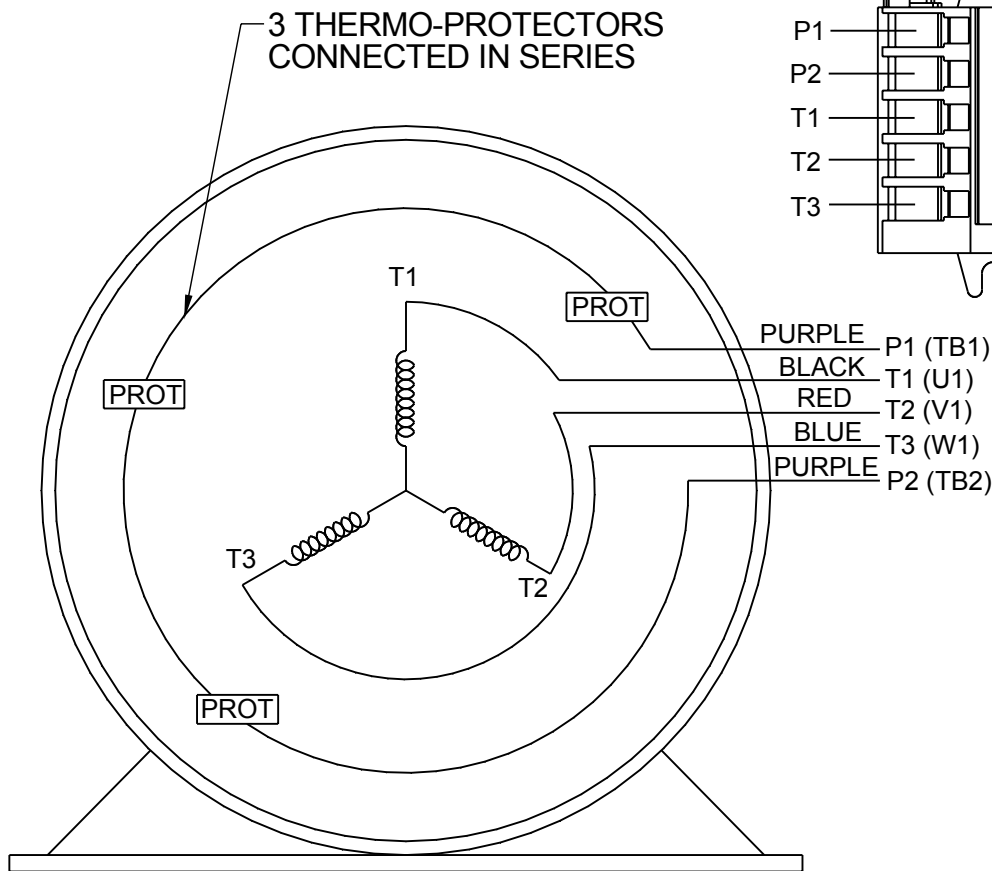
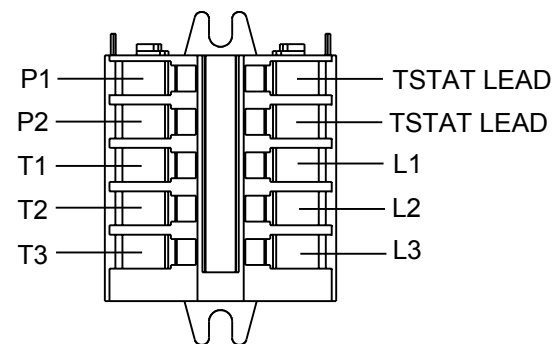
| | | |
|------------------------|---|----------------------------|
| DRAWN BY VS | Regal Rexnord Regal Beloit America, Inc. | |
| DATE 07-09-2020 | DESCRIPTION OUTLINE | |
| APPROVED BY MSH | 445/447T FR-NEMA-TEFC -CAST IRON - TACH. MTG. | |
| DATE 07-09-2020 | MATERIAL | PROCESS/FINISH |
| REFERENCE | SIZE B | DRAWING NUMBER SS621059 |
| THIRD ANGLE PROJECTION | | SHEET 1 OF 1 |

**THREE PHASE - SINGLE VOLTAGE
MOTOR - CONDUIT BOX @ 'A'**

**TO REVERSE ROTATION:
INTERCHANGE ANY TWO LINE
LEAD CONNECTIONS**

**NOTE FOR FACTORY USE ONLY:
TO SURGE TEST:
FOR 3 LEAD COMMON CONNECT:
CONNECT P1 TO T1 THEN P2 TO L1
FOR 6 LEAD COMMON CONNECT:
CONNECT P1 TO BOTH T1
THEN P2 TO L1**

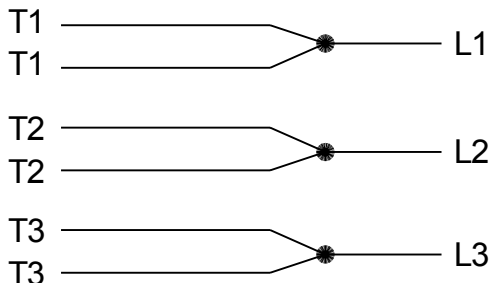
TERMINAL BLOCK WHEN SPECIFIED



- PURPLE P1 (TB1)
- BLACK T1 (U1)
- RED T2 (V1)
- BLUE T3 (W1)
- PURPLE P2 (TB2)

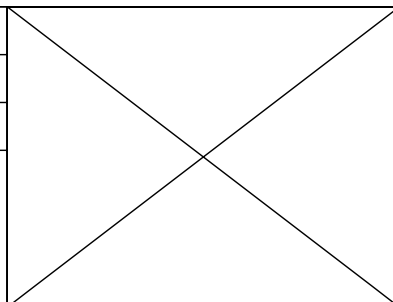
- T2BM
- T6AW
- T6AL
- T6Z
- T4EG
- T4BF
- T8A
- T6H
- T6A
- T4AX
- T4A
- T2A
- T2F

**IF MOTOR HAS MULTIPLE
T'S PER LEAD CONNECT
TOGETHER LIKE T'S**



A-9806 DECAL

| | | |
|---|----------------------|--------------------|
| DRAWING REVISION AB | REVISION BY AJW | DATE 07-17-2015 |
| ECO ECO-0081632 | APPROVED BY T.VUE | DATE 07-17-2015 |
| ECO DESCRIPTION REV'D IEC MARKINGS PER IEC-60034-8 | | |
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| | | |
|---------------------------|--|----------------------------------|
| DRAWN BY LZ | Regal Beloit America, Inc. | |
| DATE 01-04-1994 | | |
| APPROVED BY GK | DESCRIPTION CONN DIAGRAM-EXTERNAL 3Ø-SINGLE VOLT-MOTOR WITH PROTECTOR | |
| DATE 01-20-1994 | MATERIAL | |
| REFERENCE | PROCESS/FINISH | |
| THIRD ANGLE PROJECTION | SIZE A | DRAWING NUMBER EE7300T |
| | | SHEET 1 OF 1 |



P.O. BOX 8003
 WAUSAU, WI 54401-8003
 PH. 715-675-3311

DATA VOLTS: 460

CERTIFICATION DATA SHEET

CUSTOMER:
 ORDER #: _____
 CONN. DIAGRAM: EE7300T
 OUTLINE: SS621059
 WINDING: HA32804042 NONE 1
 SPEED: _____

CUSTOMER P.O. #: _____
 REFERENCE MODEL #: 445THFCD8040
 CAT #: Y578A
 CUSTOMER PART #: _____
 MOUNTING: F1/F2 CAPABLE

TYPICAL MOTOR PERFORMANCE DATA

| HP | KW | SYNC RPM | FL RPM | FRAME | ENCLOSURE | TYPE | KVA CODE | DESIGN |
|-----|-----|----------|--------|-------|-----------|------|----------|--------|
| 200 | 149 | 1800 | 1785 | 445T | TEFC | TFN | K | INV |

| PH | HZ | VOLTS | AMPS | START TYPE | DUTY | INSL | S.F. | AMB | ELEV. |
|----|----|-------|------|---------------|------|------|------|-----|-------|
| 3 | 60 | 460 | 214 | INVERTER ONLY | CONT | H | 1.15 | 40 | 3300 |

| F.L. EFF | 95.4 | 3/4 LD EFF | 95.8 | 1/2 LD EFF | 95.5 | GTD EFF | ELECT. TYPE |
|----------|------|------------|------|------------|------|---------|------------------|
| F.L. PF | 91.0 | 3/4 LD PF | 88.5 | 1/2 LD PF | 82.0 | 95.0 | SQ CAGE INV DUTY |

| F.L. TORQUE | LR AMPS @ 460 V | L.R. TORQUE | B.D. TORQUE | F.L. RISE (°C) |
|-------------|-----------------|-------------|-------------|------------------|
| 441 LB-FT | 2,029 | 1,337 LB-FT | 303% | 2,113 LB-FT 479% |

| SOUND PRESSURE @ 3 FT. | SOUND | POWER | ROTOR WK ² | MAX. LOAD WK ² | SAFE STALL TIME | STARTS/HOUR | APROX. | MOTOR WGT |
|------------------------|--------|-------|--------------------------|---------------------------|-----------------|-------------|----------|-----------|
| 75 dBA | 84 dBA | | 81.17 LB-FT ² | 235 LB-FT ² | 29 SEC. | 2 | 2204 LB. | |

***** SUPPLEMENTAL INFORMATION *****

| DE BRACKET TYPE | ODE BRACKET TYPE | MOUNT TYPE | MOTOR ORIENTATION | SEVERE DUTY | HAZARDOUS LOCATION | DRIP COVER | SCREENS | PAINT |
|-----------------|------------------|------------|-------------------|-------------|--------------------|------------|---------|---------------|
| STANDARD | ENCODER | RIGID | HORIZONTAL | NO | NONE | YES | NONE | BLUE (ENAMEL) |

| DE | ODE | GREASE | SHAFT TYPE | SPECIAL DE | SPECIAL ODE | SHAFT MATERIAL | FRAME MATERIAL |
|------|------|------------|------------|------------|-------------|-------------------------|----------------|
| BALL | BALL | POLYREX EM | T | NONE | NONE | 1045 HOT ROLLED (C-204) | CAST IRON |
| 6319 | 6317 | | | | | | |

| THERMOSTATS | PROTECTORS | WDG RTD's | BRG RTD's | THERMISTORS | CONTROL | SPACE HEATERS |
|--------------|------------|-----------|-----------|-------------|---------|---------------|
| TSTATS (NIC) | NOT | NONE | NONE | NONE | FALSE | NA |

| R1 (ohms/ph) | R2 (ohms/ph) | X1 (ohms/ph) | X2 (ohms/ph) | Xm (ohms/ph) | VIBRATION (in/sec) | FLOAT |
|--------------|--------------|--------------|--------------|--------------|--------------------|-------|
| 0.013 | 0.008 | 0.089 | 0.107 | 4.266 | 0.150 | ODE |

| | | | | | | |
|-------|---|--|--|--|--|--|
| NOTES | INVERTER TORQUE: CONSTANT 2000:1 INV. HP SPEED RANGE: 1.5 X BASE SPEED | | | | | |
| | ENCODER: NONE | | | | | |
| | NONE | | | | | |
| | NONE PPR | | | | | |

| | |
|---------------------------|---|
| PREPARED BY: _____ | BRAKE: NONE |
| DATE: 11/17/2021 | NONE NONE NONE |
| | FT-LB: NA |
| | VOLTAGE: NONE HZ: |
| FORM: 3531 REV. 4 2/27/06 | UL: V-INS, CONST, OVERHEAT PRT DEV UL REC |

Data Sheet

Date: 11/17/2021
 Customer: _____
 Attention: _____
 Submitted by: _____



445THFCD8040

Submittal

Data @ 460 V

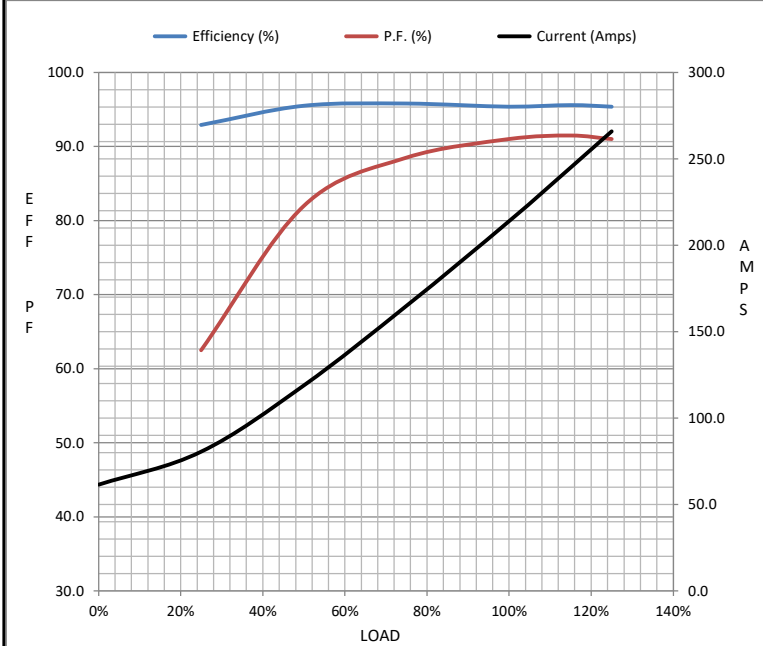
Motor Load Data

| Load | 0% | 25% | 50% | 75% | 100% | 115% | 125% | LR |
|----------------|------|------|------|------|------|-------|------|-------|
| Current (Amps) | 61.5 | 80.5 | 119 | 165 | 214 | 245 | 266 | 2,029 |
| Torque (ft-lb) | 0.00 | 110 | 220 | 330 | 441 | 507 | 552 | 1,337 |
| RPM | 1800 | 1795 | 1792 | 1790 | 1785 | 1,785 | 1785 | 0 |
| Efficiency (%) | | 92.9 | 95.5 | 95.8 | 95.4 | 95.6 | 95.4 | |
| P.F. (%) | 5.0 | 62.5 | 82.0 | 88.5 | 91.0 | 91.5 | 91.0 | 32.0 |

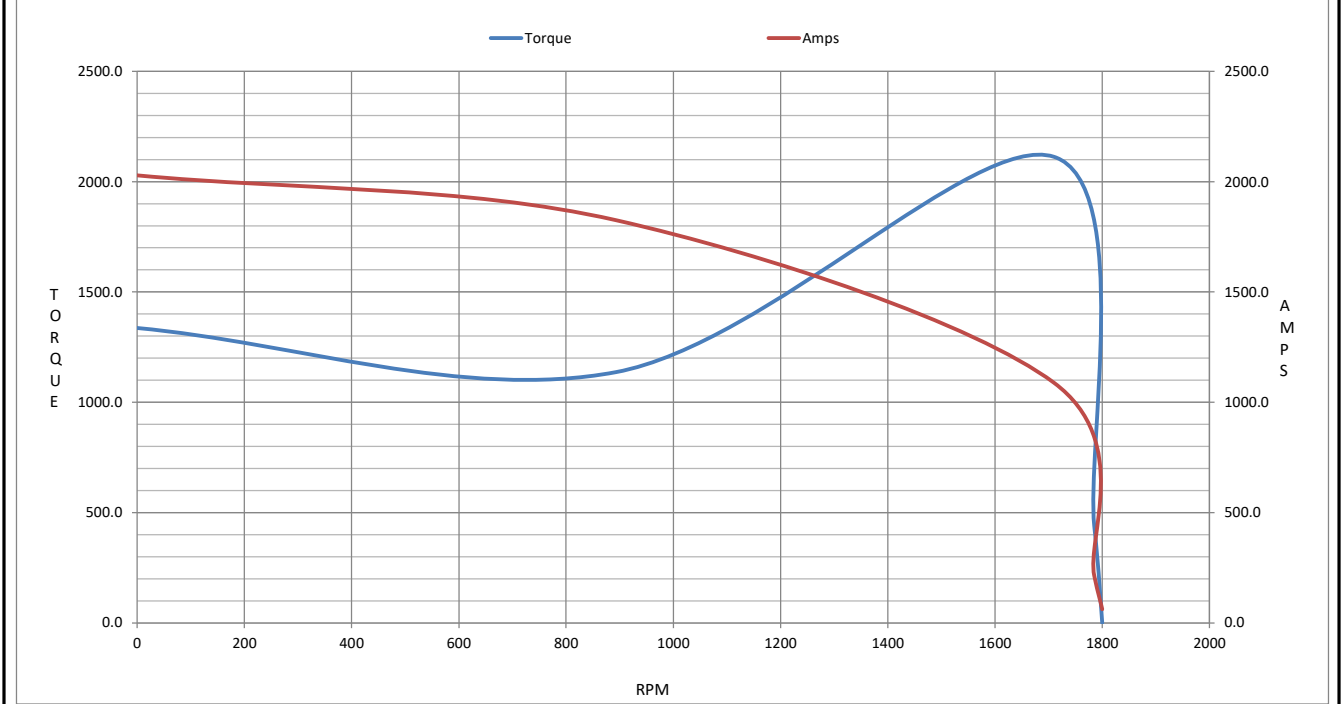
Motor Speed Data

| | LR | Pull-Up | BD | Rated | Idle |
|----------------|-------|---------|-------|-------|------|
| Speed (RPM) | 0 | 893 | 1710 | 1785 | 1800 |
| Current (Amps) | 2,029 | 1,826 | 1,089 | 214 | 61.5 |
| Torque (ft-lb) | 1,337 | 1,136 | 2,113 | 441 | 0.00 |

| Information Block | | | | |
|-----------------------------|-------------------------|--------|--------|--------|
| HP | 200.0 | | | |
| Sync. RPM | 1800 | | | |
| Frame | 445 | | | |
| Enclosure | TEFC | | | |
| Construction | TFN | | | |
| Voltage | 460 V | | | |
| Frequency | 60 Hz | | | |
| Design | INV | | | |
| LR Code letter | K | | | |
| Service Factor | 1.15 | | | |
| Temp Rise @ FL | 60 ° C | | | |
| Duty | CONT | | | |
| Ambient | 40 ° C | | | |
| Elevation | 3,300 feet | | | |
| Rotor/Shaft wk ² | 81.17 Lb-F ² | | | |
| Ref Wdg | HA32804042 NONE | | | |
| Sound Pressure @ 1M | 75 dBA | | | |
| VFD Rating | CONSTANT 2000:1 | | | |
| Outline Dwg | SS621059 | | | |
| Conn. Diag | EE7300T | | | |
| Additional Specifications: | | | | |
| 0 | | | | |
| 0 | | | | |
| EQUIV CKT (OHMS / PHASE) | | | | |
| R1 | R2 | X1 | X2 | Xm |
| 0.0130 | 0.0080 | 0.0890 | 0.1070 | 4.2660 |



Speed - Torque Curve



EC Declaration of Conformity

The undersigned representing
the manufacturer:

Regal Beloit America
100 East Randolph St.
Wausau, WI 54401

and the authorized representative
established within the Community:

Marathon Electric UK
6F Thistleton Road Ind. Estate
Market Overton
Oakham, Rutland LE15 7PP UK

are committed to providing customers with products that comply with applicable regulations and international protocols to which they are subject, including the requirements of the European Parliament Directive on the Harmonization of the laws relating to electrical equipment designed for use within certain voltage limits (2014/35/EU).

Regal Beloit America declares that the following product(s), to which this declaration relates, are in conformity with the relevant sections of the EC standards listed below.

This statement supersedes any statements previously issued pertaining to the product(s) listed below and is subject to change without notice.

Model No : 445THFCD8040

(Model No. may contain prefix and/or suffix characters)

Catalog No : Y578A

Rework No : N/A

Directives :

Low Voltage Directive 2014/35/EU

Harmonized Standards Used :

EN 60034-1: 2010 (IEC 60034-1: 2010)

EN 60034-5: 2001/A1:2007 (IEC 60034-5: 2000/A1:2006)

Authorized Representative:



Michael A. Logsdon
Vice President, Technology

Authorized Representative in the Community:



Julian Clark
Marketing Engineer

Created on 09/01/2022

CE 22